

HP Ref. 200208981-1
Alt. Ref. 00116-001100000

CLAIMS

Version with markings to show changes made

What is claimed is:

1. (original)A method of controlling a digital projector, comprising:

receiving a request to turn on the digital projector;

receiving temperature data associated with a light source from a temperature sensor;

comparing the temperature data to a predetermined threshold;

turning on a cooling device if the temperature data is above the predetermined threshold and if a turn-on request has been received; and

turning on the light source if the temperature data is at or below the predetermined threshold and if a turn-on request has been received.
2. (original)The method of claim 1 wherein the digital projector is selected from a set of projectors including: an overhead projector, a video projector, a projection television, and a cinema projector.
3. (original)The method of claim 1 wherein the light-source is selected from a set of lamps including xenon lamp and a high-pressure mercury vapor lamp.
4. (original)The method of claim 1 wherein the predetermined threshold is substantially the boiling point of mercury.
5. (original)The method of claim 1 wherein the turn-on request received is from an on/off control mounted on the digital projector.
6. (original)The method of claim 1 wherein the turn-on request received from a remote control.
7. (original)The method of claim 1 wherein the received temperature data comprises data taken in proximity to the light source.

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8. (original)The method of claim 1 wherein the received temperature data comprises data taken from the internal environment of the digital projector.

9. (currently amended) A method of controlling a digital projector, comprising:

displaying images with the digital projector using a light-source;

receiving a request to turn off the digital projector;

turning off the light-source in response to the request received; and

turning off a cooling device in response to the request and within a substantially immediate time frame without consideration of the light-source temperature.

10. (cancelled) The method of claim 9 wherein the time frame is selected from a set of time frames including: a substantially immediate time frame, a few seconds, and a convenient period of time for a user.

11. (original)The method of claim 9 wherein the digital projector is selected from a set of projectors including: an overhead projector, a video projector, a projection television, and a cinema projector.

12. (original)The method of claim 9 further comprising:

cooling the light-source passively upon receiving the turn-off request.

13. (original)The method of claim 9 wherein the light-source is a high-pressure mercury vapor lamp.

14. (original)The method of claim 9 wherein the turn-off request received is from an on/off control mounted on the digital projector.

15. (original)The method of claim 9 wherein the turn-off request received from a remote control.

16. (original)The method of claim 9 wherein the cooling device is a fan.

17. (original)A light source control apparatus for a digital projector, comprising:

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- a light source for the projection of images;
- a temperature sensor for measuring the temperature of the light source;
- a cooling device for lowering the temperature of the light source;
- an on/off control to activate the light source; and
- a control mechanism for processing temperature data and determining light source control and cooling device control, wherein the light source is activated when below a temperature threshold.

18. (original)The apparatus of claim 17 wherein the cooling device is turned on if the temperature data is above the predetermined threshold and if a turn-on request has been received; and

turning on the light source if the temperature data is at or below the predetermined threshold and if a turn-on request has been received.

19. (original)The apparatus of claim 17 wherein the turning off the light-source in response to the request received; and

turning off a cooling device in response to the request and within a time frame without consideration of the light-source temperature.

20. (original)The apparatus of claim 17 wherein a light source comprises a high-pressure mercury vapor lamp.

21. (original)The apparatus of claim 17 wherein a temperature sensor comprises a resistive sensor.

22. (original)The apparatus of claim 17 wherein a temperature sensor comprises a silicon PN-junction sensor.

23. (original)The apparatus of claim 17 wherein a temperature sensor is mounted in proximity to the light source.

24. (original)The apparatus of claim 17 wherein a temperature sensor is mounted within the body of the digital projector.

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25. (original)The apparatus of claim 17 wherein a cooling device comprises a fan.

26. (original)The apparatus of claim 17 wherein a on/off control comprises a switch mounted on the digital projector.

27. (original)The apparatus of claim 17 wherein an on/off control comprises a remote control.

28. (currently amended) The apparatus of claim 17 wherein a system controller comprises a computer system, integrated into the digital projector, including a central processing unit, random access memory, mass storage, and access to an external network..

29. (original)An apparatus for controlling a digital projector, comprising:

means for receiving a request to turn on the digital projector;

means for receiving temperature data associated with a light source from a temperature sensor;

means for comparing the temperature data to a predetermined threshold;

means for turning on a cooling device if the temperature data is above the predetermined threshold and if a turn-on request has been received; and

means for turning on the light source if the temperature data is at or below the predetermined threshold and if a turn-on request has been received.

30. (currently amended) An apparatus for controlling a digital projector, comprising:

means for displaying images with the digital projector using a light-source;

means for receiving a request to turn off the digital projector;

means for turning off the light-source in response to the request received; and

means for turning off a cooling device in response to the request and within a substantially immediate time frame without consideration of the light-source temperature.

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31. (original) A computer program product for controlling a digital projector, tangibly stored on a computer-readable medium, comprising instructions operable to cause a programmable processor to:

receive a request to turn on the digital projector;

receive temperature data associated with a light source from a temperature sensor;

compare the temperature data to a predetermined threshold;

turn on a cooling device if the temperature data is above the predetermined threshold and if a turn-on request has been received; and

turn on the light source if the temperature data is at or below the predetermined threshold and if a turn-on request has been received.

32. (currently amended) A computer program product for controlling a digital projector, tangibly stored on a computer-readable medium, comprising instructions operable to cause a programmable processor to:

display images with the digital projector using a light-source;

receive a request to turn off the digital projector;

turn off the light-source in response to the request received; and

turn off a cooling device in response to the request and within a substantially immediate time frame without consideration of the light-source temperature.